

## CLAIMS

1. A biatrial triple-chamber cardiac pacemaker comprising
  - at least one sensing unit for sense events of a first atrium and a ventricle of a heart and
    - at least one stimulation unit which is adapted to produce stimulation pulses to a second atrium and the ventricle, and
    - a control
      - which is connected to the sensing unit and the stimulation unit and
      - is adapted to evaluate at least the atrial sense events (A<sub>R</sub>-Sense) associated with the first atrium and the ventricular sense events (V-Sense) associated with the ventricle, for actuation of the stimulation unit,
      - wherein actuation is effected having regard to a ventricular escape interval and a postatrial ventricular blanking time in such a way that an atrial sense event (A<sub>R</sub>-Sense) triggers the ventricular escape interval, at the end of which a ventricular stimulation pulse is triggered if same is not inhibited by a ventricular sense event within the ventricular escape interval and outside the postatrial ventricular blanking time,
      - wherein actuation is further effected having regard to an interatrial conduction time in such a way that an atrial sense event (A<sub>R</sub>-Sense) triggers the interatrial conduction time, at the end of which a left-atrial stimulation pulse is triggered if the left-atrial stimulation pulse is not inhibited,
  - characterised in that actuation is further effected in such a way that the delivery of a left-atrial stimulation pulse is suppressed
    - if previously a ventricular sense event occurs in a crosstalk window which adjoins a postatrial ventricular blanking time and at the same time the distance in respect of time to the last ventricular event ascertained

outside a crosstalk window, to the next possible ventricular stimulation event, is greater than a predetermined maximum value.

2. A biatrial triple-chamber cardiac pacemaker as set forth in the classifying portion of claim 1 characterised in that actuation is further effected in such a way that the delivery of a left-atrial stimulation pulse is suppressed

- if a ventricular sense event occurs during a UTI operating mode in which the cardiac pacemaker works at a predetermined maximum stimulation rate.

3. A biatrial triple-chamber cardiac pacemaker as set forth in claim 1 or claim 2 comprising a sensing unit for sense events of a second (left) atrium of a heart characterised in that actuation is further effected in such a way that the delivery of a left-atrial stimulation pulse is suppressed if the sensing unit produces a signal which is characteristic of a left-atrial sense event ( $A_L$ -Sense) within the interatrial conduction time.

4. A biatrial triple-chamber cardiac pacemaker as set forth in one of claims 1 through 3 characterised by a control unit which is adapted to calculate the time spacing from a latest secured ventricular event to a next planned ventricular stimulation pulse.

5. A biatrial triple-chamber cardiac pacemaker as set forth in claim 4 characterised by a control unit which is adapted to compare the calculated time spacing to a predetermined maximum value.

6. A biatrial triple-chamber cardiac pacemaker as set forth in claim 5 characterised by a control unit which is adapted to switch off interatrial synchronisation in dependence on the comparison between the calculated time spacing and the predetermined maximum value.